

### Other sides of the coin: a feminist perspective on robustness in science and knowledge production

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Veröffentlichungsversion / Published Version  
Zeitschriftenartikel / journal article

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:  
Rainer Hampp Verlag

#### Empfohlene Zitierung / Suggested Citation:

Gunnarsson, E. (2007). Other sides of the coin: a feminist perspective on robustness in science and knowledge production. *International Journal of Action Research*, 3(3), 349-363. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-356423>

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# Other Sides of the Coin. A Feminist Perspective on Robustness in Science and Knowledge Production

Ewa Gunnarsson

Driving forces behind the occurrence of either paradigm shifts in science, or the development of new orientations within science, are often linked to demands for an increased validity or reliability in knowledge production in science. With this as a starting point, I discuss parallels and diversities between gender and feminist research and interactive research orientations<sup>1</sup>. Both traditions have a joint democratic ambition, as well as an aim to increase reliability of science. Reliability will be discussed as “social robustness” (Novotny et al. 2001). Focus will be on contributions from gender and feminist research that can lead to a joint qualifying process for both research traditions. Starting from a general discussion using “reflexive gender reminders”, to frame knowledge production, I then discuss dilemmas of robustness in interactive research processes, and researcher and participant subjectivity

**Key words:** Interactive research, gender reminders, robustness, validity, democracy

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<sup>1</sup> I will here use the concept gender research for the whole field and the concept feminist research for the stream within the field of gender research that in addition emphasizes the need for a normative change (Gunnarsson 2006). For an overview of the field see Thurén, 2003 or a short English version: Gender Studies: A Summary from the Swedish Research Council's Committee on Gender Research (2003). I will use the concept action research for the whole field and interactive research for the stream within action research that to a higher degree emphasizes the joint learning processes between researcher and participants in the research process and also emphasizes a more supportive than driving role for the researcher (Svensson 2002; Nielsen/Svensson 2006)

### 1. Reliability as socially robust knowledge

Today scientific knowledge is, to a much higher extent, integrated and permeates all sectors in society. Novotny, Scott and Gibbons (2001), stress in their book *Re-Thinking Science – Knowledge and the Public in an Age of Uncertainty* that: “Great conceptual, and organizational, categories of the modern world – state, market culture and science – have become highly permeable, even transgressive. They are ceasing to be recognizably distinct domains” (Novotny/Scott/Gibbons 2001: 166). This transformation is driven by many Swedish and European financial research bodies, through the increased requirements to involve actors outside the academy, through, for example, demands on co-financing research from the market. This merge between science and society is today also seen in new forms of governance in partnerships for growth, such as innovation systems and clusters.

One conclusion Novotny, Scott and Gibbons (2001) draw from this transformation is that this has radical implications for the demarcations between science and non-science, and for notions of professional identity and scientific expertise. They strongly argue for a move from what they call a weak contextualisation, to a stronger contextualisation, by including different knowers outside the academy in scientific knowledge production. They argue that

“The more strongly contextualized a scientific field or research domain is, the more socially robust is the knowledge it is likely to produce” (Novotny/Scott/Gibbons 2001: 167)

This move to a stronger contextualisation and its local dimension should not be confounded with the post modernist relativistic concept of “situated knowledge” (Haraway 1991). They understand social robustness as relational, and not as a relativistic or absolute idea, and therefore they add a special quality in grounding and extending the conceptualisation of validity in going beyond the relativistic post-modern idea about situated knowledge.

I will in this chapter use their idea of a stronger contextualisation and their concept of social robustness as reliability in science, as an argument for also including gender and feminist research in the field of interactive research. I use their idea of a stronger contextualisation in a double sense: firstly in a broader sense to extend knowledge production to incorporate women’s

experiences, interests and practices in general in science, secondly through a stronger contextualisation on different levels to understand gendered meanings of work, the link between paid and unpaid work, work – life balance and variations of space of action between women and men, but also in interactive research processes, the researcher – participant relation, and the researcher and participant subjectivity.

### ***The Nordic democratic turn as social robustness***

In the Nordic countries a strong “democratic turn” from the mid-seventies to the late eighties, expressed for example by the Codetermination Act in Sweden, was an important stream in the overall “participatory turn” in society as Sheila Jasanoff (2003) describes it. In the Nordic countries, strong labour movements and the women’s movement in the seventies and eighties resulted in strong empirical policy driven research, both in the field of work place democracy and working conditions. This also made gender inequalities in society more visible at the work place and in family life. Characteristic for the policy driven research at that time was its outspoken aim of usability outside the academic world. Another stream of this participatory turn during the same period was the “user friendly stream” in technology development and research. An example of this was the so called *UTOPIA-project* at The Centre for Working Life in Sweden in the beginning of the eighties, where Nordic researchers and printmakers developed a new text and image processing system for the newspaper branch. The project was unique in the sense that the research and development of a new system resulted in an up-skilling of the printmakers’ skills and not a de-skilling process in relation to technology (Ehn 1988). Policy driven gender and feminist research at the same time, where researchers and unions worked together, made skills and competence visible in so called “low skilled” female dominated branches. It resulted in new concepts describing skills and competences for white collar workers such as clerical assistants, laboratory assistants and secretaries (SIF 1987 and SIF/ST 1988).

## 2. Increasing social robustness through gender<sup>2</sup>

I will here use what I conceptualise as “reflexive gender reminders”, both as structural frames and as a methodology that could be used along the whole research process as a way to increase social robustness. Furthermore these reflexive gender reminders are used to achieve a stronger contextualisation in a double sense, firstly to broaden the arena for knowledge production in general and secondly to incorporate the “local” meaning of contextualisation. As structural frames, they are important to highlight today when gender structures are disguised in the strong discourse of individualisation in society (Gunnarsson 2003).

Three structural concepts developed by Nordic researchers since the eighties could be used for that purpose. The first two concepts, “the gender contract” and “care or responsible rationality”, embody a more holistic view in incorporating the relation between the productive and the reproductive sphere and thereby a more holistic view. The third concept, “the relative subordination of women”, highlights the normative approach to natural differences between women and men in society.

The ‘Gender Contract’ has been an informative concept for highlighting different structural and normative frames that restrict women’s and men’s space of action. Aspects of power and negotiations are important elements embodied in the concept. Gender contracts can be expressed on different levels: on an overall structural level in society in the relation between paid and unpaid work; at the work-place level, in the vertical, horizontal and time sex-segregation; and within allocation of work tasks within the family (Haavind 1985; Hirdman 1988; Gunnarsson/Friberg 1995).

Gunnel Forsberg (1998, 2001, 2006) makes local and regional variations in gender contracts in Sweden visible by using indicators of sex-segregation in the labour market, the degree to which care for children and elderly persons is solved within the enlarged family, and political representation. She concludes that; “It has also become clear that gender segregation in politics co-varies with the role played by public and social infrastructure. Where

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<sup>2</sup> This is as relevant for other powerful dimensions in society such as class, ethnicity, age and sexuality and their intersection between each other.

private social support is more common, women and men are usually more unequal” (Forsberg 1998). She distinguishes between three types of gender contracts. The first is “the traditional gender contract” with both strong labour market segregation and high levels of family-based care. The second is “the modernized gender contract” with low labour market segregation and more public sector care. The third is “the non-traditional gender contract” that represents a transitional form. This framework then allows the portrayal of local and regional type cases. These local and regional variations in gender contracts provide informative locally anchored frames to understand and problematise gendered meanings and variations of space of action, for women and men, and how they are related. In my own work it has been particularly useful when studying gendered meanings of flexibility and stability in organisations and re-location of so called e-work (see for example the website [www.emergence.nu](http://www.emergence.nu)). The concept of gender contract has improved our understanding of gendered differences in for example working hours between women and men and their meanings in relation to aspects of work – life balance.

One of the most radical theoretical contributions during the eighties that had a strong impact on the development in contemporary Nordic research was the coining of the concept “responsible or care rationality” by the Norwegian researchers Kari Waerness (1980, 1984), Björg Aase Sörensen (1982) and Hildur Ve (1989, 1994). This development of Weber’s concept of rationality made women’s paid and unpaid work with children, elderly and sick people visible. The concept also highlights in a new way unpaid care work. The focus on care work also made visible important forms of emotion work, and opened up for an expansion of the traditional work concept, and the relation between paid and unpaid work and its gendered faces. It made visible skills and qualifications in female dominated occupations that earlier had been seen as “natural” female properties. The embedded aspect of power in the concept gives a basis for understanding gendered meanings in relation to other forms of rationality in society, such as technical and economical rationality. Using the concept of rationality, women were seen as rational beings with agency, defining rational goals both in paid and unpaid work, in opposition to the earlier more passive sex-role theory. Today, work rationality has

been developed in different ways incorporating both positional and professional differences (Gunnarsson 1998).

Finally I will mention a concept coined by Hanne Haavind (1985) “the relative subordination of women”. A concept highlighting a generally accepted normative and structural difference between women and men in society, commonly illustrated by the example of giving women doing the same work as men a significantly lower salary. The concept of relative subordination could serve as a reflexive gender reminder along the research process, for making sometimes self-evident and natural power relations between women and men more visible and questioned.

### *Gender as an impetus for a paradigm shift*

To incorporate the gender dimension in this more extensive way, including women’s experiences, interests and practices as well as men’s and the relation between them, is as I see it, contributing to both a stronger contextualisation and an increased robustness in science. Furthermore, it goes beyond what the philosopher Elisabeth Kammarck Minnich (1990) formulates as “add women and stir”, as an inadequate way of solving the problem of a missing gender perspective. Including the gender dimension in a serious way is a transformation that creates more upheaval.<sup>3</sup> It stirs up questions about the objectivity of science; and it questions the researcher’s position as neutral, free from gender, values, bodies and emotions.

Reflexive gender reminders can in this way contribute to knowledge that increases what Patty Lather (1994) labels transcendent validity aspects. These are aspects of validity which refer to the achievement to produce knowledge

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<sup>3</sup> Feminist philosophers like Elisabeth Kammarck Minnich (1990) have strongly inspired feminist researchers with a more democratic and liberating aspiration. For a critique of the dominant western tradition see also Sandra Harding (1987 and 1991). For an overview of feminist contributions in the field see Evelyn Fox Keller and Helen E. Longino (1996). The work done by Dorothy Smith on a feminist sociological method is also with its point of departure in women’s everyday life and the concept “relations of ruling” a major contribution in this field (Smith 1987). In her new book *Institutional Ethnography – A Sociology for People* (Smith 2005) she develops an inquiry for people incorporating an alternative understanding of experience as dialogue. She then comes closer to the action and interactive research approach than in her earlier work.

that undermines what we already know (“paralogical validity”) and knowledge that transcend authoritarian limitations and existing norms, i.e. knowledge that is invisible due to hierarchies and norms in society, a form of new knowledge that supports a normative and paradigmatic shift in science.

### 3. Gendering “common praxis”

Interactive and action research traditions have, to a much higher extent than gender and feminist research, stressed the necessity to involve participants in the whole interactive research process, from the initial phase of formulating the research problem, co-researching and co-analysing to the final distribution of knowledge (Svensson 2002; Aagaard Nielsen/Svensson 2006). Creating these arenas for establishing “common praxis” where researchers’ and participants’ input with “participatory experiences”<sup>4</sup> is a means to achieve a stronger robustness in knowledge production. To incorporate the idea of common praxis in gender and feminist research could refine these research traditions in a new way.<sup>5</sup>

A critical potential in gender and feminist research in general lies in its potential to act as a “consciousness raising tool” (Gunnarsson 2006), making different forms of power relations visible not only in relation to gender but also in relation to other socially powerful dimensions in society such as class, ethnicity, sexuality and age. These are social power relations that are embedded and active, not only in the research field and in interactive research processes, but are also embedded and normative within the researchers and practitioners themselves, and in the relations between them. A too unarticulated common praxis, i.e. not making visible and incorporate power relations, has from a feminist standpoint been heavily criticised for neglecting and marginalising the impact of gender (Maguire 2002). Britt-Marie Thurén (1996) has developed a necessary analytical and comparative tool to evaluate the validity of the gender dimension in terms of “force, scope and hierarchy”

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<sup>4</sup> The concept ‘participatory experiences’ is used by Eva Amundsdotter (2006).

<sup>5</sup> Lisa Heldke (1989) labels this the ‘co-responsible option’ (i.e. a common responsibility for the inquiry) and she stresses the similarities between the epistemological projects of John Dewey and Evelyn Fox Keller.



in variable local contexts. These dimensions are important to locally contextualise gender in relation to other social dimensions such as class, ethnicity, age and sexuality and thereby increase social robustness.<sup>6</sup>

To make visible gendered variations in experiences, interests and practices in the process of shaping common praxis in the interactive research process is, as I see it, an important dimension of communicative validity (Kvale 1989). It is an aspect of communicative validity that is by Hilary Bradbury and Peter Reason (2001) described as “relational practice” i.e. including the evaluation of the quality of the relations that the participants in a research project have developed. This is also a means to increase social robustness in the common praxis arena. Feminist researchers have often solved this in practice by creating both joint and separate arenas for women and men when reflecting on different research themes. In the common mixed groups with women and men, a frequently used method by feminist researchers is to have a “gender guard” and a “position guard”, i.e. a person who observes who is given the privilege of interpretation and voice heard in the group, in relation to gender and position. This has for example been studied in different staff meetings in a recent project, with the double aim of achieving increased gender equality integration in the organisation, and increased gender competence (Gunnarsson/Westberg/Andersson/Balkmar 2007).

The new stream within gender research: “Critical Studies on Men” is here contributing in a fruitful and challenging way by naming men as men and as such being gendered with gendered actions in their everyday life as well as in research practices (Hearn 2002; Seidler 2007).<sup>7</sup>

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<sup>6</sup> Thurén (1996) suggests three concepts that differentiate between aspects of gendering: Force, scope and hierarchy. Force deals with the importance of gender. Is gender-governed behaviour well defined? Are there sanctions for those who break the gendered patterns of behaviour? Scope deals with the number of areas that are affected by gendering (divisions of labour, life styles, interests, body dynamics, etc). Hierarchy has to do with power and assessment of values. Is one gender more powerful or considered more valuable than other?

<sup>7</sup> For an overview of the field see the journal *Men and Masculinities*, which offers interdisciplinary research in the emerging field of men and masculinities studies (Ed. Michael Kimmel, Sage Publications).

### *To question common experiences*

The lack of insights among participants has to be problematised, and dealt with in a similar way as the researcher's own lack. An example of how this can be dealt with in practice, when investigating variations in experiences, is here referred to as memories.<sup>8</sup> The method of memory- work as it is developed by Karin Widerberg (1999, 2002), offers a fruitful alternative means for consciousness-raising in relation to variations in experiences with respect to gender, class and ethnicity. The method destabilises subjectivity by making visible alternative understandings of the multiple 'I'. The researcher and the participants jointly choose an interesting and relevant issue for writing down a personal memory/experience. A second version is then written with a different gender as the "I" in the story. This could then be extended to versions where the "I" is changed in respect to class and ethnicity in the same memory. Groups are then formed, with 4-6 persons who choose one written memory in the group. They then read the different versions of that memory loud to each other, and discuss the transformation of the meanings of the experience in the different versions. Very uncomfortable differences became visible in my own work with this method. The method is particularly useful in the initial phase of an interactive research process, when the research question is formulated. It creates a more robust frame or contextualisation for the research process, and extends the arena for knowledge production where unknown aspects are more likely to appear.

Some of my former colleagues and I, at the National Institute for Working Life, have within the programme "Working Life in Urban Areas" developed this method for large groups and a method that is also useful when you have a short time for the exercise. This exercise takes between 30 – 45 minutes. We

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<sup>8</sup> Since the end of the seventies and until today a specific contribution has also been made to the development of qualitative methods as means to increase "adequacy", "usefulness" or here named "robustness" in science both in gender and feminist research (Acker/Barry/Esseveld 1983; Gunnarsson 2006). In the Nordic countries a special contribution has been made in the development of qualitative methods that focuses reflexive research processes, researcher practices and subjectivity. It is in this field that gender and feminist research offer a particularly challenging contribution to action and interactive research (see for example, Berge/Ve 2000; Davies 1999; Gunnarsson/Andersson/Westberg 1998; Gunnarsson/Westberg/Andersson/Balkmar 2007; Haavind 2000; Widerberg 1999, 2002).

started to use original already existing quotations on constructions of skills and competence from women and men in a male dominated industry. We then followed the procedures as described above, and formulated three new quotations with the same content but changed the subject “I” to another sex, ethnicity and position. This resulted in a very interesting experience. The quotations became funny but also very absurd when we changed the “I” from a white man to a coloured woman. A conclusion we, researchers and participants, drew from that work-shop experience was that gender biases were understood as conceptions, but ethnic biases were understood as prejudice.

### **The unequal and obsolete dichotomy researcher – practitioner**

As a result of the democratic process in working life in the Nordic countries since the late seventies, the researcher’s position as expert was already questioned and limited. The participants or practitioners have strengthened their position as knowledge agents during this period.

The unarticulated dichotomy researcher – practitioner in action and interactive research creates a dilemma, not only from a gender perspective. The dichotomy disguises important relations of power but is also an unequal dichotomy in other ways. It is associated with philosophers like Aristotle and Kant (Lloyd 1984) who systemized the existing dichotomous thinking into a distinction between theoretical and practical reason that is obsolete in the modern knowledge society.<sup>9</sup> It relates to the dichotomy of head and hand, and a traditional view of industrial work and crafts versus more “intellectual” work. In my opinion both categories are too broad and unarticulated. The dichotomy reproduces and reflects the separation between theory and practice, which action and interactive research stress must be avoided. In my own work with participants like claims adjusters, technical advisers and ICT consultants, they felt very uncomfortable being called practitioners and could not identify themselves with that category. Today more and more groups of professionals have an academic degree.

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<sup>9</sup> For an overview of how different philosophers and philosophical traditions have used dichotomies, see Lloyd (1984).

Using the dichotomy researcher – practitioner still reflects a normative privilege of interpretation in favour of the researcher. This privilege, often given to the researcher from the participants, reflects the status of science in our society.

The researcher is also a “researcher practitioner or participant”, with practices grounded in our society and in the everyday-life we all live; and cannot be treated as a detached part of it. Eikeland (2006) has in his work solved the problem by using the dichotomy researcher – practitioner relation in a new way. He uses the dichotomy master – apprentice relationship where he emphasizes this relationship as dynamic and based on sharing, because it is designed to make the apprentice into a master. In this interactive process both researchers and participants hold both positions. To an extent I agree, but the way the conceptualisation master – apprentice has been used in practice falls short to a feminist researcher. From a feminist perspective the conceptualisation of master – apprentice has been strongly criticised for disguising social power relations such as gender but also differences within the category of class. The use of master – apprentice is closely linked to the history of male guilds, and therefore permeated by a male norm. The conceptualisation of master – apprentice was deconstructed during the eighties by many feminists doing research on qualifications and skills. In my own work this has been problematised both in relation to female dominated “unskilled work” but also in relation to the hierarchy between skilled and unskilled male industrial workers. The research we did clearly showed that the underlying norm in “skilled and qualified” was a “qualified” male industrial worker, in occupations strongly embodying a male guild tradition. This norm particularly marginalised skills and qualifications in female dominated occupations (Gunnarsson 1994). This was also shown when different work evaluation systems were deconstructed in the nineties.

It is a challenge suggesting a fruitful way of transcending the stereotypical and hierarchical thinking embedded in the researcher – practitioner dichotomy. However I see it as a necessary focus for a broad discussion where different categories of participants have to be involved. If a dichotomy has to be used, the new concepts must reflect a more equal value and position in terms of both knowledge contribution and power relations. Dichotomies

could be fruitful as “thought positions” (Gunnarsson 1994) or metaphors highlighting some important elements but they are very limiting as analytical tools in practice and tend to reproduce old and new stereotypes. Fortunately, by virtue of their variability, real life and practice constantly challenge and transcend our dichotomies.

#### **4. Concluding remarks**

I have in this article used the concepts of contextualisation and social robustness, used by Novotny, Scott and Gibbons (2001), to show how gender and feminist research could contribute to increase social robustness in interactive research. What I claim as “gender reflexive reminders” serve as informative structural frames, as well as a methodology that could be used along the whole research process, as a way to increase robustness in knowledge production. These gender reflexive reminders are used to achieve a stronger contextualisation in a double sense, firstly to broaden the arena for knowledge production in general and secondly to incorporate more “local” meanings of contextualisation. For this purpose I have in this context used three concepts, the gender contract, care/responsible rationality and the relative subordination of women. These concepts link different levels of contextualisation as well as incorporating a more holistic view that makes a broader life context visible.

I have, from a feminist perspective, problematised the arena for common praxis in interactive research, the researcher’s and participant’s subjectivity, and the dichotomy researcher – practitioner relation. I have highlighted arenas where I think gender and feminist research, especially in the field of qualitative methods, could contribute to an increased social robustness in interactive research processes.

Gender and feminist research can, in my opinion, be a critical and challenging potential for interactive research in many ways. To organise joint arenas with researchers from both traditions, as well as different groups of participants outside the academy, would benefit both traditions to develop an extended and more robust concept of validity. This is a concept that is more adequate to the reality of the ongoing transformation of today’s society.

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